

What is claimed is:

1 1. An article of manufacture for effecting a diminution in the reduction in
2 collagen biosynthesis in human skin mediated by exposure of the skin to UV
3 radiation, comprising: a packaged first composition comprising an effective
4 amount of a retinoid in a pharmaceutically acceptable carrier suitable for topical
5 administration; and indicia associated with said packaged composition indicating
6 that said composition is applied to the skin at least about eight hours prior to
7 exposure to UV radiation to effect said diminution.

1 2. The article of claim 1, wherein the retinoid in the first composition is
2 all-*trans* retinoic acid, retinol, or a mixture thereof.

1 3. The article of claim 1, wherein the retinoid in the first composition
2 prevents a diminution in Type I procollagen synthesis.

1 4. The article of claim 1, wherein the retinoid in the first composition
2 prevents a diminution in Type III procollagen synthesis.

1 5. The article of claim 1, wherein indicia advises that the source of the
2 UV radiation is the sun.

1 6. The article of claim 1, further comprising a second composition
2 selected from the group consisting of a sunscreen, a sunblock, an antioxidant, or
3 a combination thereof.

1 7. The article of claim 1, further comprising as a second composition an
2 antioxidant.

1 8. The article of claim 1, further comprising as a second composition a
2 combination of (i) an antioxidant and (ii) a sunscreen or sunblock.

1 9. The article of claim 6 or 8, wherein the sunscreen comprises
2 4-*t*-butyl-4'-methoxydibenzoylmethane.

1 10. The article of claim 9, wherein the sunscreen is a combination of
2 4-*t*-butyl-4'-methoxydibenzoylmethane and 2-ethylhexyl *p*-methoxycinnamate.

1 11. The article of claim 6, 7, 8, 9, or 10, wherein said first composition
2 and said second composition are provided in separate formulations.

1 12. The article of claim 6, 7, 8, 9, or 10, wherein said first composition
2 and said second composition are provided in a single formulation.

1 13. A topical pharmaceutical composition for preventing the reduction in
2 collagen biosynthesis in human skin mediated by c-JUN through exposure of the
3 skin to UV radiation, comprising an effective amount of an inhibitor of c-JUN and
4 a pharmaceutically acceptable carrier therefor, wherein said composition is
5 topically administering to the skin prior to the exposure of the skin to UV radiation
6 by an amount of time effective to prevent a UV-induced reduction in collagen
7 biosynthesis.

1 14. The composition of claim 13, wherein the inhibitor is a
2 geranyltransferase inhibitor, lisofylline, SB202190, PD98059, an antagonist of an
3 ionophore, G protein-coupled receptor, or epidermal growth factor receptor.

1 15. The composition of claim 14, wherein the antagonist is suramin,
2 AG-494, Erbstatin analog, Genistein, Lavendustin A, Tyrphostins 1, 9, 23, 25, 46,
3 47, or 51, or PD 153035.

1 16. The composition of claim 15, wherein the antagonist is genistein.